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1. Substance/preparation and company identification

Company BASF CORPORATION 100 Campus Drive Florham Park, NJ 07932, USA 24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP

2. Composition/information on ingredients

CAS Number 584-84-9 91-08-7 <u>Content (W/W)</u> 1.0 - 5.0 % 0.1 - 1.0 % <u>Chemical name</u> toluene-2,4-diisocyanate toluene-2,6-diisocyanate

3. Hazard identification

Emergency overview

WARNING: CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF INHALED. This product contains isocyanates. Prolonged or repeated skin contact may cause sensitization or allergic reactions. Avoid contact with the skin, eyes and clothing. Keep container tightly closed. Wash thoroughly after handling.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: toluene-2,4-diisocyanate

- Of very high toxicity after short-term inhalation.
- Virtually nontoxic after a single ingestion.
- Virtually nontoxic after a single skin contact.

Information on: toluene-2,6-diisocyanate

- Of very high toxicity after short-term inhalation. In animal studies the substance is virtually nontoxic after a single ingestion.
- In animal studies the substance is virtually nontoxic after a single ingestion.
- EU-classification

Irritation:

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Irritating to eyes, respiratory system and skin.	
Information on: toluene-2,4-diisocyanate	
Irritating to eyes, respiratory system and skin. Informatio Irritating to eyes, respiratory system and skin.	on on: toluene-2,6-diisocyanate
Sensitization:	
May produce an allergic reaction. Sensitization after repeated ski	n contact possible.
Information on: toluene-2,4-diisocyanate	
The substance may cause sensitization of the respirator	y tract.
Sensitization after repeated skin contact possible.	-
Information on: toluene-2,6-diisocyanate	
The substance may cause sensitization of the respirator	ry tract.
Sensitization after repeated skin contact possible.	-

The substance may cause damage to the lung even after repeated inhalation of low doses, as shown in animal studies.

4. First-aid measures

General advice: First aid personnel should pay attention to their own safety. Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

If in eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor.

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-fighting measures

Flash point:	260 °F
	126 °C

Lower explosion limit: Upper explosion limit: No data available. No data available.

Suitable extinguishing media:

carbon dioxide, dry extinguishing media, foam, water fog

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

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Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions:

Use personal protective clothing. Do not breathe vapour/aerosol/spray mists. Sources of ignition should be kept well clear. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Cleanup:

For small amounts: Pick up with inert absorbent material (e.g. sand, earth etc.). Dispose of contaminated material as prescribed. For large amounts: Pump off product.

7. Handling and storage

Handling

General advice:

Avoid aerosol formation. Avoid inhalation of mists/vapours. Avoid skin contact. No special measures necessary provided product is used correctly.

Protection against fire and explosion:

The substance/product is non-combustible. The product does not contribute to the spreading of flames, nor is it self combustible, not explosive. Take precautionary measures against static discharges.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight. Store protected against freezing.

8. Exposure controls and personal protection

Components with workplace control parameters

toluene-2,4-diisocyanate	OSHA	CLV 0.02 ppm 0.14 mg/m3 ;
	ACGIH	TWA value 0.005 ppm ; STEL value 0.02 ppm ;
toluene-2,6-diisocyanate		
-	ACGIH	TWA value 0.005 ppm;STEL value 0.02 ppm;

Personal protective equipment

Respiratory protection:

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators.

Hand protection:

Wear chemical resistant protective gloves.

Eye protection:

Safety glasses with side-shields.

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Body protection:

Impermeable protective clothing

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and chemical properties

Form:	liquid	
Odour:	mild	
Colour:	amber	
pH value:		Unspecified
Melting point:		No data available.
Boiling range:	237 - 251 °C	
Vapour pressure:		No data available.
Relative density:	8.7 - 9.1	(23 °C)
Vapour density:		Heavier than air.
Partitioning coefficient		No data available.
n-octanol/water (log Pow):		
Viscosity, dynamic:		No data available.

10. Stability and reactivity

Conditions to avoid:

Avoid extreme temperatures.

Substances to avoid:

strong oxidizing agents, strong bases, strong acids

Hazardous reactions:

The product is stable if stored and handled as prescribed/indicated.

Decomposition products:

irritant gases/vapours, carbon oxides

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Acute toxicity

Oral: No data available.

Inhalation: No data available.

Dermal: No data available.

Sensitization:

Can sensitize the skin and/or respiratory tract of allergic persons. May produce an allergic reaction. **Genetic toxicity:**

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Information on: toluene-2,6-diisocyanate

The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Carcinogenicity:

Information on: toluene-2,4-diisocyanate Indication of possible carcinogenic effect in animal tests. A clear indication of an increased risk of cancer in humans has so far not been shown.

12. Ecological information

Environmental toxicity

Other ecotoxicological advice: Ecological data are not available.

13. Disposal considerations

Waste disposal of substance:

Recommendations: Use excess product in an alternate beneficial application. Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with local authority regulations.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport information

Land transport USDOT	Not classified as a dangerous good under transport regulations
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Sea transport IMDG	
	Not classified as a dangerous good under transport regulations
Air transport IATA/ICAO	

Not classified as a dangerous good under transport regulations

15. Regulatory information

Federal Regulations

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Registration status: TSCA, US

released / listed

IARC 1, 2A or 2B carcinogen, NTP listed carcinogen, Chronic target organ OSHA hazard category: effects reported, ACGIH TLV established

SARA hazard categories (EPCRA 311/312): Acute, Chronic

SARA 313:

CAS Number	Chemical name
91-08-7	toluene-2,6-diisocyanate
584-84-9	toluene-2,4-diisocyanate

State regulations

State RTK

CAS Number 584-84-9 91-08-7

Chemical name toluene-2,4-diisocyanate toluene-2,6-diisocyanate State RTK MA. NJ. PA MA, NJ, PA

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

16. Other information

HMIS III rating

Health: 2[¤] Flammability: 1 Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Local contact information

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